2006 STATE OF HAWAII WATER QUALITY MONITORING AND ASSESSMENT REPORT:

Integrated Report To The U.S. Environmental Protection Agency and The U.S. Congress
Pursuant To Sections §303(D) and §305(B), Clean Water Act (P.L. 97-117)

CHAPTER I
MARINE WATERS

Prepared by The Hawaii State Department of Health
Clean Water Branch

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EXECUTIVE SUMMARY

HIDOH's 2006 303(d) List contains a total of 209 marine areas. The breakdown for the individual islands (number of listed waters per island/total number of listed waters) are: Kauai 28 (13% of total), Oahu 71 (34% of total), Molokai 3 (1% of total), Lanai 6 (3% of total), Maui 72 (34% of total), and Hawaii 31 (15% of total). Of the 209 marine areas, 39 new water bodies were added, 4 were de-listed (Analani Pond (Puala'a), Ala Moana Beach (Diamond Hd), Lanikai Beach, and Waimanalo Bay Station (Waimanalo Beach County Park (North)), all for enterococci, and 7 previously listed water bodies were listed for new pollutants.

Bacteria. Of the 209 listed marine waters, 56 were due to high *Enterococcus* indicator bacteria test results. In general the department does not consider these waters to represent a threat to human health, despite the results, because in tropical waters, *Enterococcus* may result from animal waste or soils, instead of human sewage which the indicator bacteria was intended to signal. Recent studies presented at the recent 2006 BEACH Conference suggest that *Enterococcus* reproduces in biofilm found in drainage pipe, concrete channels and river rocks, and in beach sand. For these reasons, Hawaii uses a secondary indicator, *Clostridium perfringens* to determine if human fecal contamination is involved

Hawaii's bacterial water quality standard is only 7 colony forming units (CFU)/100mL, as compared to the national standard of 35 cfu/100mL. During rain events, *Enterococcus* levels in the marine waters increase due to storm water runoff from streams and storm drains. For these reasons, HIDOH intends to raise the Hawaii standard to 35 cfu/100mL to match the national standard. Nonetheless, when *Enterococcus* levels rise during non-storm related events, a sanitary survey is conducted to determine the cause of the rise.

Turbidity. Turbidity was the most common pollutant to trigger a marine water listing with 154 occurrences. The HIDOH thinks these are due to polluted runoff, and is focusing its polluted runoff control program on selected watersheds to make measurable improvements.

New Impairment Listings. The 39 new marine areas were listed for one or a combination of pollutants that include *Enterococcus*, total nitrogen, nitrate + nitrite, total phosphorus, turbidity, chlorophyll a, and ammonium nitrogen. Similar to the existing listings, turbidity was the most common pollutant to trigger a marine water listing, with 24 occurrences.

Methods. Marine decision units (boundaries for water areas for analyses) were changed from the 2004 303(d)/305(b) List to the 2006 List, making direct comparison impractical. The boundaries will continue to be refined in the future. In general, 10 acceptable quality samples were required to change the status of a decision unit (water area) from its 2004 evaluation.

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PART A. INTRODUCTION

This report is intended to satisfy the requirements for State reporting pursuant to Sections §303(D) and §305(B), Clean Water Act (P.L. 97-117). These reports have previously been separated into two final products, however, EPA's guidance for compiling the 2006 Integrated Report for 303(d)/305(b) [1] urges states to integrate their 303(d) Lists and 305(b) Reports to ensure that consistent methodologies are applied in the preparation of both documents. The 305(b) report is "[t]he **National Water Quality Inventory Report to Congress …** [and] is the primary vehicle for informing Congress and the public about general water quality conditions in the United States. This document characterizes our water quality, identifies widespread water quality problems of national significance, and describes various programs implemented to restore and protect our waters".[2] EPA recommends that states sort their surface waters into 5 Categories according to the following guidance:

Category 1: All designated uses are supported, no use is threatened;
Category 2: Available data and/or information indicate that some, but not all of the designated uses are supported.
Category 3: There is insufficient available data and/or information to make a use support determinations.
Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed.
- **4a**. A TMDL to address a specific segment/pollutant combination has been approved or established by EPA.
- **4b**. A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements.
- **4c**. A use is impaired, but the impairment is not caused by a pollutant.

Category 5: Available data and/or information indicate that at least one designated use in not being supported or is threatened, and a TMDL is needed.

The 303(d) List of Impaired Waters, identifies water bodies that are not expected to meet state water quality standards, even after application of technology-based effluent limitations. States are required to obtain and review all existing and readily available surface water quality data and related information to compare against the state's Water Quality Standards, and after applying listing criteria, determines the level of impairment for that water body. The list requirements apply to water bodies impaired by point and/or non-point sources of pollution and include a requirement for listing of those pollutants for which applicable water quality standards are exceeded.

[1] Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act (July 29, 2005)
[2] EPA Monitoring and Assessing Water Quality (n.d.). Retrieved September 27 2006, from http://www.epa.gov/305b/

The 2006 List of Water Quality-Limited Segments, plus a priority ranking of listed waters, based on the severity of pollution and the uses of the waters, must be submitted by HIDOH to EPA for approval by April 1, 2006. Computation of Total Maximum Daily Loads (TMDLs) for all §303(d)-listed pollutant/waterbody combinations, prepared in accordance with the priority rankings, must follow with EPA approval of each state's List. Total Maximum Daily Loads (TMDLs) for all listed pollutant/waterbody combinations are prepared in accordance with the priority rankings and the State-EPA schedule for submission for TMDLs. This schedule is negotiated on a continuing basis and is influenced by federal funding, state policy, data availability and a host of other factors, which vary from year to year.

Hawaii's 2004 List plus data collected from these and other State water bodies over the past six years constitute the body of information reviewed for the 2006 Integrated Report. Decisions to list, de-list or not list a water body, for which data exist and have been reviewed, must be documented (40 CFR §130.7). The periodic listing process allows HIDOH to list water bodies, which after recent sampling, show exceedance; de-list water bodies (from the 303(d) section), which do not, after further sampling show exceedance for listed parameters; and more clearly articulate the parameters for which previously listed water bodies should be listed. Additional information is also provided regarding attainment of known pollutants, pursuant to the 305(b) portion of the guidance as well.

HIDOH's 2006 Integrated Report, 303(d) List of Impaired Waters contains a total of 93 stream segments and 209 marine segments for which decisions of attainment or non-attainment reflect the water bodies status as impaired. However, this year HIDOH has segregated the decision units to classify the waters into water body types as described in HAR §11-54-1. Therefore, direct comparison of decision units between the 2004 List and that presented in the 2006 Report is not practical. There were 17 new inland water segments, and 39 new marine water bodies listed for 2006.

A known discrepancy exists within the 2006 IR List. The Hawaii Administrative Rules (HAR) Chapter 11, section 54 establishes the rules that guide the management of Hawaii's waters. Although the term "recreational waters" is used within HAR 11-54, a set definition does not exist within its pages. All marine waters are defined in 11-54-2(c) as falling within 3 general categories embayments, open coastal, or oceanic waters, and although these categories are subdivided, a reference to the definition of "recreational waters" is not made. However, 11-54-8(b) "In marine recreational waters:", specifies areas of applicability, and defines numerical criteria for microbiological parameters, but fails to define the umbrella category of marine recreational waters. This discrepancy allows known non-recreational areas to maintain a recreational status, with all applicable numerical and descriptive criteria. Such areas include posted or signed areas of non-recreation such as Honolulu and Barber's Point Harbors, Kewalo Basin, and Ala Wai Boat Harbor (see Figure 3a on page 21). It is hoped that this discrepancy and lack of definition within HAR 11-54 will be reviewed and addressed within the near future.

PART B. SCOPE OF WATERS IN THE INTEGRATED REPORT

This chapter of the report covers all waters of salinity more than 0.5 parts per thousand, which include estuary and coastal waters. Assessment units were modified for the 2006 cycle. For previous cycles, the assessment units were the sampling stations. The 2006 cycle maintains the sampling stations, but expands the geographic scope to include a larger water body area. The 2004 listings were referenced to ensure proper placement of previously listed areas. Water bodies were partitioned according to HAR §11-54 by type and then listings renewed accordingly. Please see methodology section, Part C.2. for details regarding decision units for attainment decisions.

PART C. SURFACE WATER MONITORING AND ASSESSMENT

C.1. Monitoring Program

This part of the water quality assessment report discusses the condition of the various water bodies (estuaries, coastal shorelines). The entire monitoring program is examined from strategies and procedures to data assessment. The majority of the information used in this section was gathered mainly from the Clean Water Branch.

Monitoring Strategy Overview
Two main types of surface water monitoring data are used in this report: bacteriological, and chemical. Bacteriological monitoring of the shoreline areas continues under the auspices of the BEACH program, and the guidance of a Quality Assurance Project Plan (QAPP) (newer version in final stages of approval). Shoreline and offshore chemistry monitoring have been curtailed including the quarterly samples in Kaneohe and Pokai Bays for reasons described below within the Chemical Sampling section.

EPA's STORET databases are the repository of data and information collected by DOH. Water body assessments will utilize the most current data and information from these systems. The end-users of the database systems include not only government agencies but consultants, students and the general public.

As with other volunteer monitoring programs throughout the nation, the public sector contributions provide invaluable service not only to the communities but to government as well. In Hawaii, an example is the partnership with the Hanalei Watershed Hui and the DOH monitoring program. To a large extent the projects are currently part of the learning experience in which the participants hope to develop a model for other volunteer groups and communities elsewhere. It is hoped that future projects will involve other volunteer groups as well.

Collaboration between the Department of Health and other state and federal agencies, including private consulting firms, is another key component of the monitoring program. The permit requirements such as CWA §401 and §402 stipulate water quality monitoring by permit holders. It provides a source of data from which the State's monitoring program also benefits. Currently, this data does not reside in the STORET system, although it is a possible future consideration.

Water quality data generated by the permits result in greater Statewide coverage and comprehensive assessments at no increase in cost to the program. The coordination between multiple agencies and permit applicants also provides for expediting the permit process through early plan reviews and dialogues in preconstruction meetings.

Networks and Programs

Microbiological Sampling

The purpose of the CWB microbiological sampling is to focus mainly on the shoreline waters throughout the state for the purpose of assuring the safety of the swimmers, surfers, divers and other recreational users of the near shore waters. This program serves two purposes, first it identifies those areas where there is a potential for health related risks associated with the recreational use of shoreline waters. Secondly, monitoring provides an ongoing baseline from which to establish trends in the future, and from which to determine if additional sample results show unusual or abnormal levels, (i.e., indicating possible contamination, such as a sewage leak).

As of December 2005, the CWB bacteriological monitoring program was sampling at approximately 79 stations (lesser or greater depending on rotational series) throughout the state (Kauai 8, Oahu 37, Maui 13 and Hawaii 21). The approximate 79 stations are among the 363 stations established throughout the state (Kauai 31, Oahu 177, Maui 70, and Hawaii 85), most of which are sampled on a rotational basis. The sites are monitored on a twice-weekly (core sites) or bi-weekly (rotational sites) basis.

Water samples are analyzed for *Enterococcus*, the recommended EPA indicator bacteria for Marine Recreational Waters. However, limitations have been found in the accuracy of its use for this purpose. *Enterococcus* have been shown to multiply outside of the human body, and it is also found in fecal matter of various wildlife (such as feral pigs) in Hawaii. Also, there is a growing consensus that it may not be an effective indicator, as "…these fecal indicator bacteria [*E. coli* and enterococci] have previously been reported to occur naturally in water, soil and on plants in tropical locations such as Hawaii (Fujioka et al., 1988; Hardina and Fujioka, 1991), Guam (Fujioka et al., 1999), Puerto Rico (Hazen, 1988; Rivera et al., 1988) and south Florida (Desmarais et al., 2002). These results indicated that the assumptions incorporated in the current guidelines to interpret water quality standards were not applicable to all regions, particularly tropical locations."[3] Rain storm or high surf events raises the enterococci levels along the coastal areas and is not a result of human fecal contamination. In view of this, EPA has allowed Hawaii to use *Clostridium perfringens*, in conjunction with *Enterococci*, as a secondary tracer.

Chemical Sampling

The coastal and offshore chemistry monitoring program is designed to monitor conditions in the marine environment, while compiling a database from which a baseline can be established. As mentioned above, both programs were curtailed indefinitely, due to personnel and resource limitations, a focus on supporting stream chemistry monitoring and watershed assessments, and

[3] Byappanahalli, M and R. Fujioka, 2004. Indigenous soil bacteria and low moisture may limit but allow fecal bacteria to multiply and become a minor population in topical soils. Water Science and Technology. vol. 50, 1:27-32.

an increase in the frequency of shoreline sampling due to the inception of the BEACH program. Renewal of the offshore sampling is projected to occur within the next cycle. Regular shoreline chemistry sampling is projected to resume in late 2006. Special shoreline chemistry sampling was performed to a limited extent in the Ke'ehi Lagoon area in late 2005-early 2006.

Laboratory Analytical Support

The DOH employed the use of two Hawaii-based laboratories for analysis of samples, the State DOH Laboratory, and the Natural Energy Laboratory of Hawaii (NELH). The Environmental Health Analytical Services Branch, Chemistry Section is responsible for the analysis of the samples collected by DOH personnel. The two basic types of samples, microbiological and chemical, are each handled by separate sections within the Chemistry Branch of the Laboratory Division. NELH was utilized on a limited basis for microbiology sampling for West Hawaii. Each of the four largest islands, Kauai, Oahu, Maui and Hawaii, has its own microbiology laboratory which conducts the analysis for their respective islands. Only the Oahu laboratory is currently capable of conducting chemical analyses; samples from the other islands are air-shipped to the Oahu laboratory.

Quality Assurance/Quality Control

The monitoring program quality assurance/quality control is governed by the Quality Assurance Project Plan (QAPP), a comprehensive document which covers all aspects of the program. Currently, it has been rewritten and is in the final stages of approval. Two newly created positions within DOH will manage the QA/QC responsibilities. The Environmental Management Division will fill a division-wide QA/QC position in State FY07, while CWB had created and filled a new QA/QC position in early 2004.

Data Storage, Management and Sharing

The main repository for monitoring data is EPA's STOrage and RETrieval (STORET) system. All post 1999 sampling data obtained from the Clean Water Branch's fixed network of routine monitoring stations is first compiled into a CWB Access database, then entered, or will be entered into EPA's STORET system. Data prior to 1999 is stored in the "Legacy STORET Database". Monitoring data will continue to be entered into STORET via the DATASTOR program created specifically for this purpose by the EPA Region IX STORET coordinator. It is anticipated that by 2007 STORET will be replaced by the Water Quality Exchange system (WQX). All existing STORET data will be transferred to WQX, and all future monitoring data will then submitted to WQX. The data is then uploaded to EPA's main database which can be accessed via the internet. Future plans also include to use the Exchange Network for data transfer (www.exchangenetwork.net)

The Clean Water Branch also handles numerous requests for data from students, administrators, teachers, private citizens, consultants and many others, and freely shares its data with all of them. Such requests are filled utilizing the CWB Access database.

Permittee effluent monitoring also generates a significant amount of sampling data. However, the data is only on hard copy, not electronic form. Although the data is accessible, it must be gathered and then compiled by hand before analysis is performed. Hence, only those involved

with or concerned about a specific location normally reviews this type of information. CWB staff would like to have this data available as an additional source of information (especially in areas where no other sampling may exist), however, other responsibilities have higher priority (e.g. WBS assessments and the 305(b) report), and therefore, no progress has been made in inputting this data into STORET.

C.2. Assessment Methodology

Data Sources

A formal call for marine data was made in October 2005. All data was used with the exception of two sources. The list below details the major sources used. A complete listing can be found in the attached section at the end of the report entitled "Log of Data Received for 2006 Integrated Report (Brackish and Marine Waters)".

ENVIRONMENTAL ASSESSMENT COMPANY.
EAC is a private research company headed by Richard Brock, PhD. An extensive data set was provided by Dr. Brock for the south-south-eastern coast of Lanai, and the Kona (western) coast of the Big Island (Hawaii). All data was produced following a prepared methodology, complying with the "West Hawaii Coastal Monitoring Program Monitoring Protocol Guidelines" (May, 1992). Laboratory analysis follows Standard Methods (1999).

MARINE RESEARCH CONSULTANTS
MRC is a private research company headed by Steve Dollar, PhD. The ongoing research was prepared for the Makena Resort Corp. to characterize coastal water quality (specifically targeting parameters set forth in HAR 11-54), in Makena, Maui. An extensive data set was provided, following prepared sampling methodology, documented analysis methodology (Strickland and Parsons 1968, Grasshoff 1983), and utilizing EPA rated laboratories (Marine Analytical Specialists). A data set was also provided for the Ewa (south-west) area of Oahu, focusing on the coastal areas near the Ocean Pointe Development.

CLEAN WATER BRANCH
With continued funding from EPA's BEACH program, the existing bacteriological shoreline program was able to greatly expand both the number of sites and samples taken. The microbiological dataset extends from 1973 to present, however past reports have only included data from the previous 3 years, due to pollutant levels at sampling stations remaining fairly stable over time. This report maintains this methodology. The Monitoring Section provided a bacteriological data set of 10,114 samples for 4 of the main Hawaiian islands. The data was collected following the CWB QAPP. The data is routinely checked by the QA/QC officer.

HANALEI WATERSHED HUI
In 2005, CWB began a cooperative bacteriological sampling program with the Hanalei Watershed Hui, in which the Hui would collect samples at several of the northern Kauai stations. However, due to inconsistencies in secondary checks (a QA/QC method requested by DOH), only microbiological and turbidity data were used for this cycle.
GACCI-FM

Data was submitted from this company for sampling performed at the Kauai Lagoon Resort site, located on the southeastern Kauai, from October 2004 to January 2005. The sampled water body is a man-made lagoon, and is not considered to be coastal or estuarine water; therefore the dataset was not used.

Assessment Methodology

The EPA/DOH agreement requires a reassessment of those areas where sampling had been conducted in the two-year period. Since these water bodies had been evaluated previously, the existing records were updated with the current information. Assessments were conducted for those water bodies for which sampling data was available in the 2003 to 2005 time period. When necessary, and if data was available, data from previous years were also utilized. The assessments performed for this document by EPO and CWB staff, followed the Assessment Guidance document (July 2005) to the maximum extent practicable.

For this cycle, the multi-categorization method has been employed, yielding a better categorical description of each water. However, since the previous cycle employed a single category listing method, a 2004 listing labeled with one category may now be listed with multiple categories. Table 4 documents changes between the two reports, and the justifications for doing so.

The five categories that are prescribed by EPA for application to each state's water bodies are listed below. The guidance document itself can be accessed at the following web site: http://www.epa.gov/owow/tmdl/2006IRG/#documents. Figure 1 shows the steps taken as a flow chart. Waters must be placed into the following categories following assessment:

Category 1: All designated uses are supported, no use is threatened;
Category 2: Available data and/or information indicate that some, but not all of the designated uses are supported.
Category 3: There is insufficient available data and/or information to make a use support determinations.
Category 4: Available data and/or information indicate that at least one designated use is not being supported or is threatened, but a TMDL is not needed.
4a. A TMDL to address a specific segment/pollutant combination has been approved or established by EPA.
4b. A use impairment caused by a pollutant is being addressed by the state through other pollution control requirements.
4c. A use is impaired, but the impairment is not caused by a pollutant.
Category 5: Available data and/or information indicate that at least one designated use in not being supported or is threatened, and a TMDL is needed.

Assessment Utilizing Hawaii Water Quality Standards

The HAR Chapter 11-54 defines the state standards for particular parameters for Hawaii waters, and is defined by both narrative and numerical criteria. §11-54-1.1 defines a general policy of water quality anti-degradation for all water types and is as follows:

(a) Existing uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.

(b) Where the quality of fish, shellfish, and wildlife and recreation in and on the water, that quality shall be maintained and protected unless the director finds, after full satisfaction of the intergovernmental coordination and public participation provisions of the state's continuing planning process, that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In allowing such degradation or lower water quality, the director shall assure water quality adequate to protect existing uses fully. Further, the director shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control.
(c) Where high quality waters constitute an outstanding national resource, such as waters of national and state parks, and wildlife refuges and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

HAR §11-54-3(c) defines classifications for marine waters, and marine water bodies are separated by type into 3 main water body categories: embayment, open coastal, and oceanic. The classification uses a tiered system, defining two Classes, "AA" and "A." Class AA waters are described as: "It is the objective of class AA waters that these waters remain in their natural pristine state as nearly as possible with an absolute minimum of pollution or alteration of water quality from any human-caused source or actions. To the extent practicable, the wilderness character of these areas shall be protected." Zones of mixing are not permitted within certain Class AA waters (HAR §11-54-3(c)(1)). Class A waters are described as: "It is the objective of class A waters that their use for recreational purposes and aesthetic enjoyment be permitted as long as it is compatible with the protection and propagation of fish, shellfish, and wildlife, and with recreation in and on these waters." New sewage discharges or industrial discharges are not permitted within Class A. embayments, with the exception of three industrial discharge types identified in HAR §11-54-3(c)(2).

The embayment and open coastal categories are further refined by inclusion of a wet or dry criterion, typically defined by levels of freshwater input (HAR §11-54-6(a)(3) and HAR §11-54-6(b)(3)). For the 2006 reporting cycle, these criteria were revised using maps of "Wet and Dry Marine Waters" provided in State 208 Plans and county Water Management Plans. In the embayment category, embayments are defined as "…land-confined and physically–protected marine waters with restricted openings to open coastal waters, defined by the ratio of total bay volume to the cross-sectional entrance area of seven hundred to one or greater." (HAR 11-54-6a(1)). Although many of the embayments meeting this definition are named in the standards, the standards do not specify the exact location of the "entrance" of each embayment to which the formula was applied. For purposes of this report, delineations of embayments were made using best professional judgment, and primarily drawn between the nearest land "points" (usually a named point, such as Palea and Pai'olu'olu points for Hanauma Bay) that form the mouth of each.

Two special area categories, Pearl Harbor, and Kona (west Hawaii) are defined for salt waters, and establish specific standards for their respective water type. In addition, defined limits are placed upon the application of the standard for enterococci. As stated by HAR §11-54, the standard is applicable "within 300 meters (one thousand feet) of the shoreline, including natural

public bathing or wading areas". Therefore, all listings in the IR List are applicable only out to the stated boundary. Assessments of water bodies for this report adhere to these outlined definitions. Available assessment data was compiled using the defined methodology (geometric mean), and compared to each applicable standard. Each water body was categorized according to comparison with each particular standard. A more detailed description of the standards is available in the attached copy of this document as an appendix. It also can be accessed at the following website:
http://www.hawaii.gov/health/about/rules/11-54.pdf.

DOH's Microbiological sampling utilizes *Enterococcus* indicator bacteria density measurements for the state standard, which has been found to be problematic in Hawaii and other BEACH programs across the country. As previously mentioned in the **Microbiological Sampling** section, several studies have shown that *Enterococcus* may not be an effective indicator in tropical locations such as Hawaii [3]. The use of *Enterococcus* bacteria as an indicator of human fecal contamination has been shown to be unreliable, multiplying outside of the human body, and is also found in fecal matter of various wildlife (such as feral pigs) in Hawaii. Additionally, a 2005 study at Mission Bay, San Diego, California focused upon tracking causes of bacterial contamination, and found that "…fecal coliform and *Enterococcus* bacteria can survive for prolonged periods of time in coastal storm drains…" and that "…the majority of the indicator bacteria in Mission Bay originates from birds and that the initial load generated from avian sources can then be amplified by irrigation runoff, storm drains, intertidal sediments, and the wrack line" (Gruber et al., 2005) [4].

Clostridium perfringens has validity as an effective indicator of fecal contamination, and a viable option for monitoring water quality. Increasing numbers of research disproving the reliability of *Enterococcus* as an indicator, and a lawsuit initiated by the National Research Defense Council (NRDC) prompted action by EPA. In 2006-2007 EPA began formal processes to investigate the validity of current bacterial indicators, and the potential of other methodologies and/or indicators. The resulting workshop, the Experts Scientific Workshop on Critical Research and Science Needs for the Development of New or Revised Recreational Water Quality Criteria, produced a report that attempted to address the situation. Several potential indicators were reviewed in detail, and the report acknowledges that "The presence of *C. perfringens* (spores) in water, therefore provides evidence of existing human/urban fecal contamination…", and adds that "although methods have been available for some time, confirmation of a robust and consistent method approach should be developed"[5]. As shown, both organisms have limitations in applicability. Usage of a single organism for water quality characterization therefore, is not desirable. To improve accuracy of Hawaii's water quality monitoring, a two-organism approach is applied, utilizing *C. perfringens* as a companion indicator alongside *Enterococcus*.

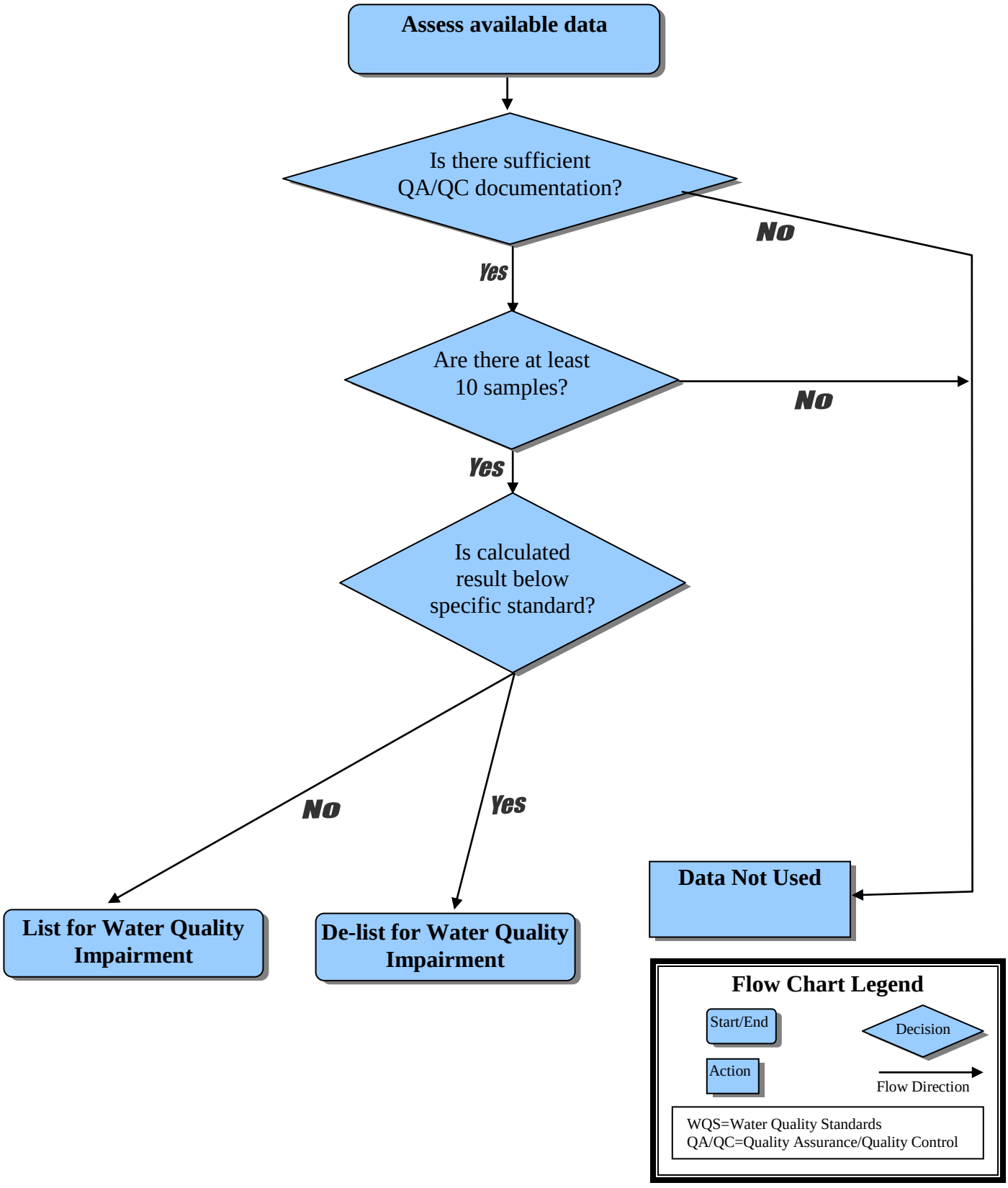
Although the HAR does not specify the use of *Clostridium perfringens* as a companion indicator for *Enterococcus*, as noted earlier, it is has been allowable with EPA for its use in Hawaii, and

[4] Gruber, S.J, Kay, L.M., Kolb, R., and Henry, K. 2005. Mission Bay bacterial source identification study-A Clean Beaches initiative grant helps track causes of contamination. Stormwater. vol. 6, 3:40-51.
[5] EPA – Office of Water, Office of Research and Development. 2007. *Report of the Experts Scientific Workshop on Critical Research Needs For the Development of New or Revised Recreational Water Quality Criteria*. EPA 823-R-07-006. (June 15, 2007).

has been employed effectively in daily assessments. Therefore, for this report, exceedances of the *Enterococcus* standard were evaluated with that of the *C. perfringens* guideline for inclusion as impairment. The existing HAR 11-54-8b(1), stipulates that the running geometric mean for *Enterococcus* is calculated over not less than 5 samples within a 25-30 day period. Usage of *C. perfringens* to evaluate impairment status for a water body was performed ONLY if a *Enterococcus* geometric mean was found to be >7 cfu/100 ml, and *C. perfringens* levels were >50cfu/100ml. Only if both situations occurred, the water body was assigned an impaired status.

FIGURE 1: Flow Chart of Listing/De-listing Process for Conventional Pollutants

(enterococci, TN, NO3+NO2, TP, turbidity, chl-a, NH4, others)



Changes to Assessment Methodology

Modifications to the assessment units were instituted for the 2006 reporting cycle. With each ensuing cycle, it is encouraged that state's assessment units be refined to improve characterization of their waters. For the 2004 cycle, the units were comprised of individual monitoring stations. For 2006, assessment units are based upon defined named areas. The units maintain the focus on same monitoring stations; however they differ in that the represented area has been expanded to the named beach that the station resides within. For example, a 2004 listing shows a geographic scope of "Gray's Beach station [Halekulani]". For 2006, the geographic scope is now listed as the named area of "Gray's Beach", where the "Gray's Beach station [Halekulani]" is encapsulated within that area. This is justifiable since past monitoring has indicated similar sampling results from adjacent sampling stations at coastal areas, except in cases of inflow from point sources or streams. In addition, the use of the new assessment areas improves characterization of the geographic scope, and 3 other areas of importance. First, it defines areas for assessment that were not named in previous cycles, allowing for increased monitoring coverage and assessment. Second, the units are closely related to human use, which allows for improved monitoring and assessment in areas where the public has greatest concerns. Third, the new units utilize publicly familiar names, which will potentially improve relevance and comprehension of this report.

With the 2006 cycle, CWB will also move closer towards the EPA desired "Watershed Approach" to water quality assessment. Hawaii's topographical structure is comprised of generally short, small watersheds defined by steep mountain walls. Input of fresh waters into the fronting marine waters is generally limited to the specific watershed that feeds those streams. In future cycles it is hoped that watershed names will be included to organize listings for both inland and marine waters. It is hoped that the restructuring of the assessment units may provide a more seamless integration of both water-types. An existing watershed GIS layer developed by the Office of State Planning was used for delineation. The layer can be found along with metadata at the following website: http://www.hawaii.gov/dbedt/gis/download.htm.

Two boundaries are defined by HAR 11-54 to guide the application of the water quality standards: 1) a 1000' or 300m boundary and, 2) a 100 fathom depth contour boundary. The first boundary defines the marine recreational waters where the state enterococcus standard is applied "[w]ithin 300 meters (one thousand feet) of the shoreline, including natural public bathing or wading areas…" (HAR 11-54-8(b)(1). The second boundary defines the open coastal waters, and is the "…marine waters bounded by the 183 meter or 600 foot (100 fathom) depth contour and the shoreline…" (HAR 11-54-6.3(b)(1).

There are difficulties in combining the boundary guidelines of HAR 11-54, and defined boundary limits for coastal areas. The natural process of erosion forms each island's shoreline, and as a result, instead of a smooth circular coastline, there are myriad angles at which the sea meets the shore. Because of this, if defined shoreline boundaries (e.g., a defined beach area) are extended seaward, intersections of these boundary lines are difficult to avoid and do not result in easily defined segments. In addition, by definition in the rule, several other boundaries are also involved with the Class A and Class AA marine waters (HAR 11-54-3(c)). Waters that fall within marine and wildlife sanctuaries, and waters that are specified unique or critical habitats for threatened or endangered species as specified by the U.S. Fish and Wildlife Service are also included (HAR 11-54-6 (a-b)).

This report represents the first phase in creating a comprehensive, coherent interpretation of all pertinent assimilated guidelines. The boundary definitions used in the report utilizes the demarcated areas of the State Water Quality Maps (Class A and AA) as a guide, but does not adhere to them exactly. Since each island is unique, the boundaries for each island were delineated individually following a set of general guidelines. Where unique features of a particular island were encountered more detail was added to the delineation. Guiding principles included (but were not limited to) the following factors:

1. Historic and existing boundary delineations.
2. Marine geographic setting.
3. Watershed characteristics and coastal impacts.
4. Overlapping inter-island boundaries (quadrants and designated uses, e.g. Class AA, Whale Sanctuaries, NWHI).
5. Distance from shoreline to 100-fathom depth.

The resultant demarcations (figures 2 through 5) are the first phase in establishing these areas, however additional analysis on areas of overlap, and ambiguity must be performed before further decisions are made. Ensuing cycles will incorporate improvements upon completion. For current reporting purposes the focus will remain on the major units.

Figures 2, 3, 4 and 5 show the delineated areas that represent the assimilated boundary data for the 7 main Hawaiian Islands.[6] For this cycle, the complete inventory of marine waters assessment decision units are too complex and detailed to be fully captured in report-size pages (8.5x11 or 11x17). As a result, not all defined areas are displayed in the figures.

Figure 3a displays a larger scale view of a portion of the Oahu coastline, and the 300m (1000') marine recreational water boundary line. This figure illustrates how a watershed is composed of a number of individual segments, or assessment units. Each named segment corresponds to an identification alphanumeric geocode (e.g. Royal-Moana Beach is geocode HI898947) and both are used to identify the segments in Tables 1-8. A discussion on the geocodes can be found in the following section, Assessment Codes.

For this cycle (for enterococci), in the instances where new areas contain 2 or more sampling stations, the area is segmented to the corresponding number of stations rather than combining the data. This method was chosen due to the stipulated (HAR 11-54) use of a geometric mean used for a defined number of samples (>5). A geometric mean is temporally sensitive; therefore the last 5 consecutive samples of an area must be used in the calculations. However, because frequency of sampling varies between stations (due to a rotating schedule of areas), it is possible that an overrepresentation of a station may occur, skewing the data to the conditions of that particular area. Segmenting the area maintains the integrity of the data for each station, and keeps within the mandates of HAR 11-54. The use of visual assessments was not used for the 2006 cycle. Unlike previous cycles, visual assessment data was not available for 2006. Listings from previous cycles based on legacy visual

[6] Jeffrey Walters of the State of Hawaii Department of Land and Natural Resources assisted with the acquisition and interpretation of Whale Sanctuary Boundary delineations. Michael Parke of the U.S. Department of Commerce (National Oceanic and Atmospheric Administration) provided provisional data for construction the 100 fathom boundary around Niihau.

FIGURE 2:
Marine Waterbody Demarcations -
Kauai and Niihau

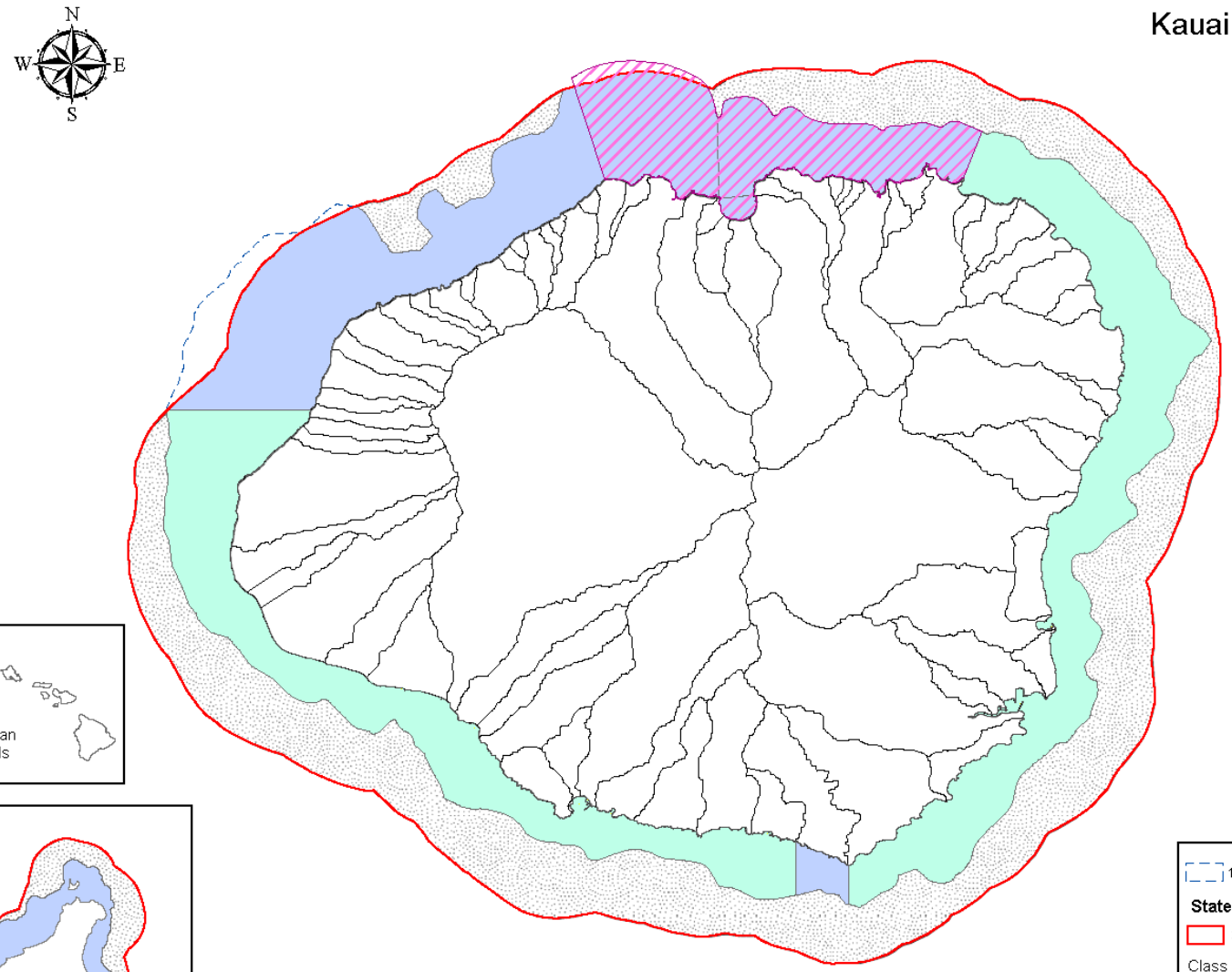
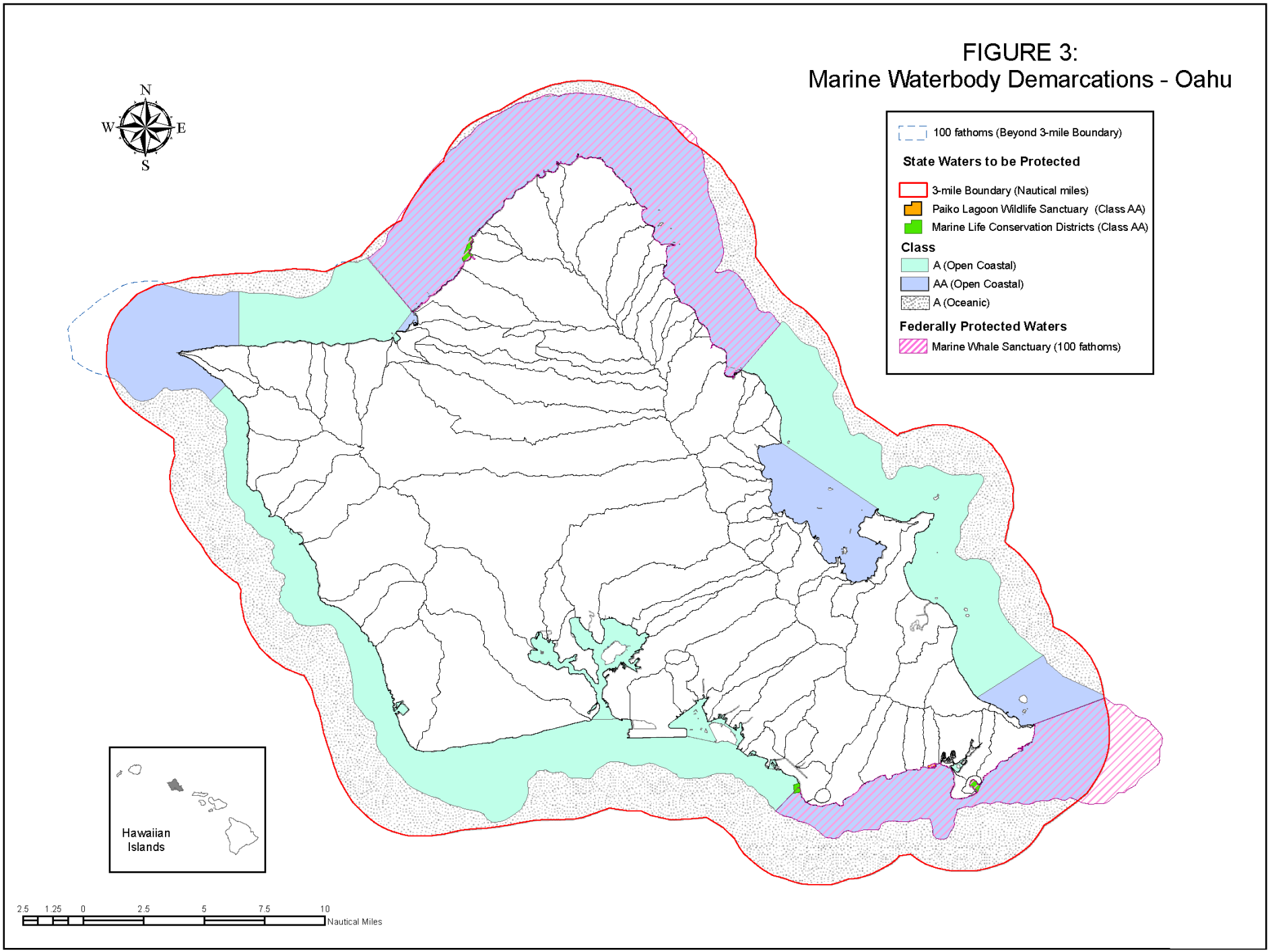


FIGURE 3:
Marine Waterbody Demarcations - Oahu



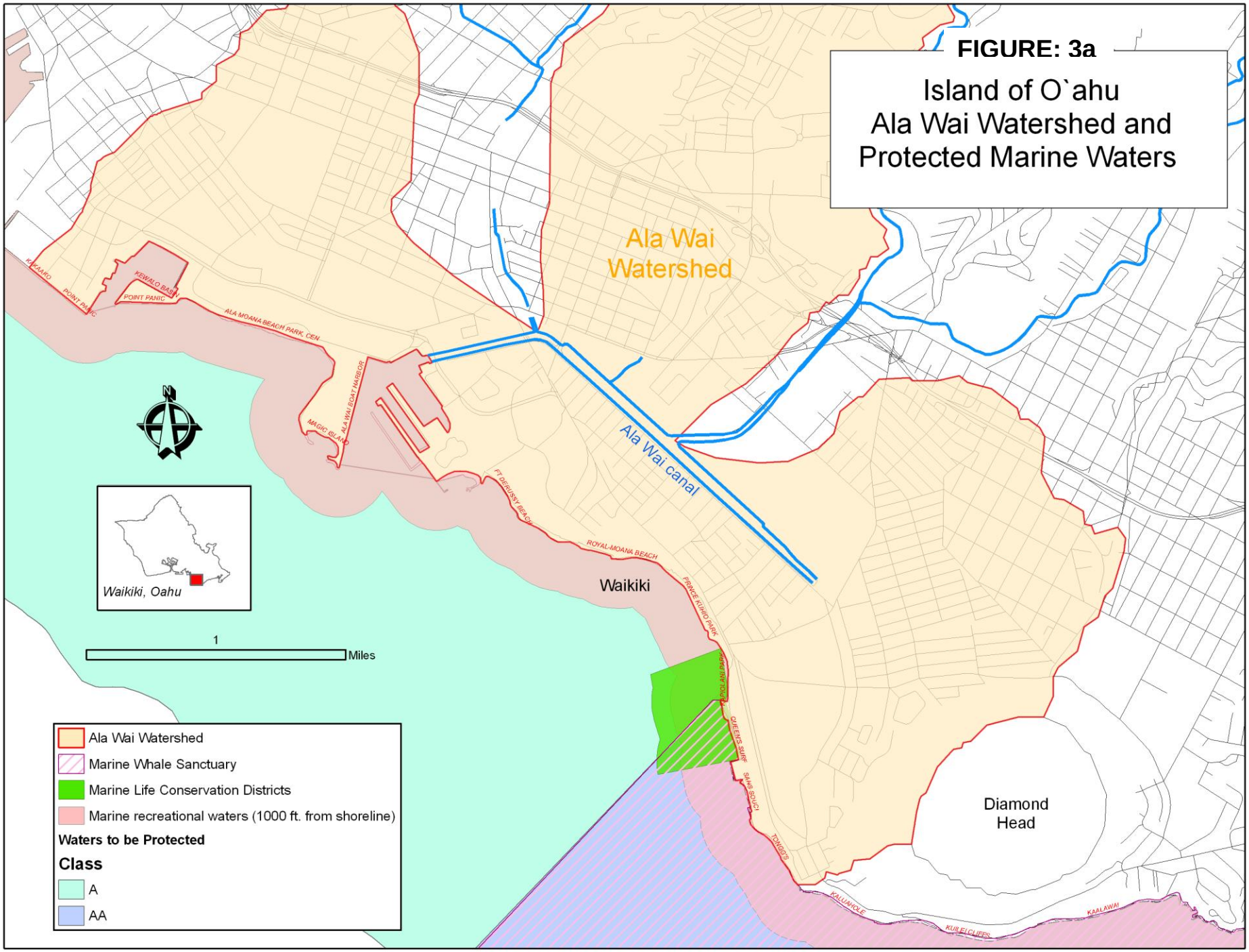


FIGURE: 3a
Island of O`ahu
Ala Wai Watershed and
Protected Marine Waters
Ala Wai
Watershed
Ala Wai canal
Waikiki
Diamond
Head
Waikiki, Oahu
1
Miles
Ala Wai Watershed
Marine Whale Sanctuary
Marine Life Conservation Districts
Marine recreational waters (1000 ft. from shoreline)
Waters to be Protected
Class
A
AA

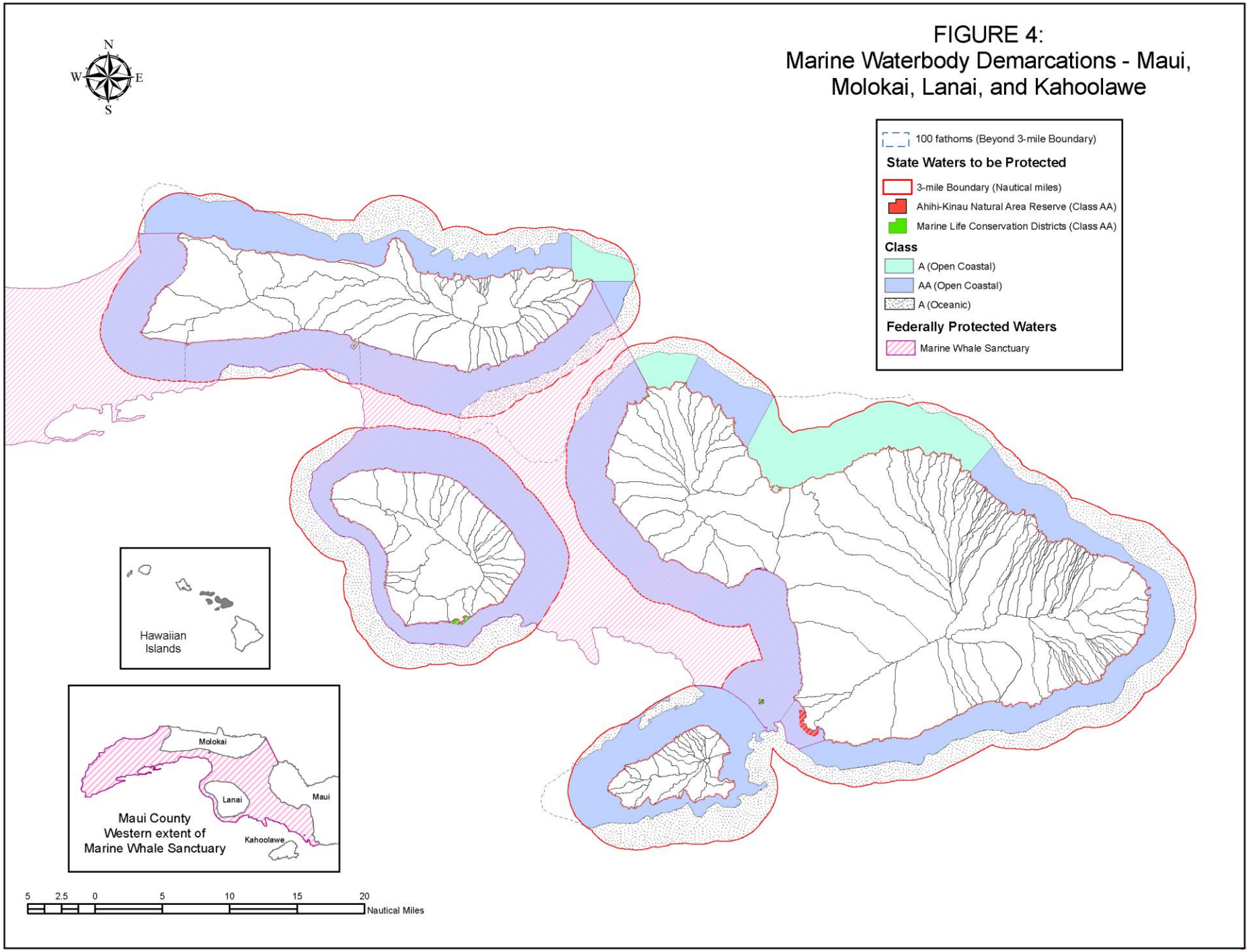


FIGURE 4:
Marine Waterbody Demarcations - Maui, Molokai, Lanai, and Kahoolawe
N
W
E
S
100 fathoms (Beyond 3-mile Boundary)
State Waters to be Protected
3-mile Boundary (Nautical miles)
Ahihi-Kinau Natural Area Reserve (Class AA)
Marine Life Conservation Districts (Class AA)
Class
A (Open Coastal)
AA (Open Coastal)
A (Oceanic)
Federally Protected Waters
Marine Whale Sanctuary
Hawaiian Islands
Molokai
Lanai
Maui
Kahoolawe
Maui County
Western extent of
Marine Whale Sanctuary
5 2.5 0 5 10 15 20
Nautical Miles

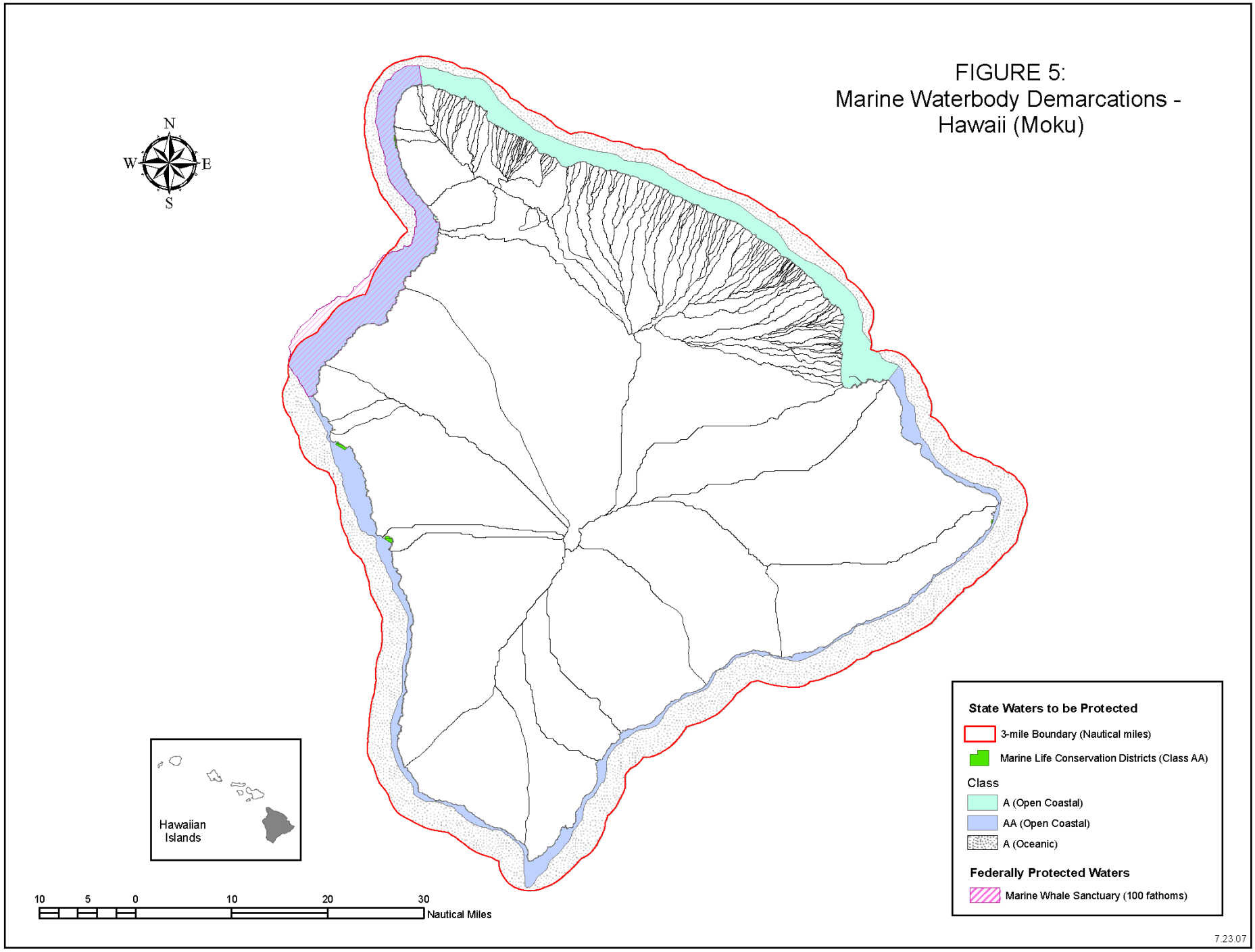


FIGURE 5:
Marine Waterbody Demarcations -
Hawaii (Moku)
N
W
E
S
Hawaiian Islands
10 5 0 10 20 30
Nautical Miles
State Waters to be Protected
3-mile Boundary (Nautical miles)
Marine Life Conservation Districts (Class AA)
Class
A (Open Coastal)
AA (Open Coastal)
A (Oceanic)
Federally Protected Waters
Marine Whale Sanctuary (100 fathoms)
7.23.07

assessments have been carried over to the present listing. An example is the carry-over of the 2004 nutrient and turbidity listing for the geographic scope of "Kahului Bay inshore of breakwater". In future cycles it is possible that this data will be revisited and/or reassessed.

Assessment Codes (Geocodes)
For the 2006 report, an alphanumeric code (geocode) was assigned to each marine water body. This code differs from previous reports which identified sampling areas via the DOH STORET sampling station number. Two sets of geocodes exist in the Hawaii structure, a 2 letter alphanumeric (HI), and a 3 letter alphanumeric (HIW). The numeric portion of both geocodes is preceded by the state abbreviation (HI) as suggested by EPA protocol. The 2 letter geocode is from an existing structure from the EPA BEACH program that identifies recreational waters across the state. Use of this code greatly streamlines compilation of data for future reports by utilizing matching codes and names, and improves compatibility between two programs that utilize similar data. The 3 letter code was generated in response to areas where BEACH codes do not exist, for example, legacy listings (e.g. South Molokai Coast Near shore waters to 18' from southwest point – Waialua), and areas that are divided into smaller subsections (e.g. Kahana Bay which has 3 sections). Each code is comprised of a total of 8 characters, and is not ordered (due to the random generation process of BEACH codes).

C.3. Assessment Results

TABLE 1. Category Totals by Island

Island	Total Assessed	2,3	2,3,5	3,5	3	2	Newly Listed Waters	Newly Listed Pollutant	Total 5 ("3,5" + "2,3,5")	Total 2 ("2,3" + "2,3,5")	De-listed Waters
Kauai	35	8	3	25	45	0	6	0	28	11	0
Oahu	99	28	14	53	80	0	11	2	67	42	3
Molokai	3	0	0	3	34	0	0	0	3	0	0
Lanai	8	2	6	0	9	0	6	0	6	8	0
Maui	73	1	17	55	49	0	2	4	72	18	0
Hawaii	45	12	21	12	44	0	14	1	33	33	1
Totals	**260**	**51**	**61**	**148**	**261**	**0**	**39**	**7**	**209**	**112**	**4**

The above table summarizes the results of the assessments. In total, there were 525 water bodies, of which 260 (50%) had available data for assessment (Kauai 44%, Oahu 54%, Molokai 8%, Lanai 44%, Maui 61%, Hawaii 53%). A total of 4 water bodies were de-listed (no category 5 listing present): Analani Pond (Puala'a) (HI707059), Ala Moana Beach (Diamond Hd) (HIW00002), Lanikai Beach (HI596989), Waimanalo Bay station (Waimanalo Beach Co. Pk (North)) (HIW00175). Assessment results for all four beaches showed that state standards were attained for enterococci, using the enterococci and *Clostridium perfringens* indicator bacteria as mentioned earlier in this document. No single category "2" was assigned to any water body, due to occurrences of category "3" (unknown, or no data) in at least one pollutant. A total of 39 new water bodies were listed with at least one category "5", and a total of 7 previously listed water bodies had a pollutant added to category "5". The following tables list the newly listed waters for each island, and the parameters for which they are listed.

Table 2 displays the total of 5 newly listed waters for the island of Kauai, Haena Beach Park (HI554189), Kapaa Beach Co. Park (HI972832), Lydgate Park (HI798758), Po'ipu Beach Co. Park (HI396850), and Salt Pond Beach Co. Park (HI701008). Assessments for all four water bodies showed that state standards were not attained for enterococci at Haena Beach, but not at Lydgate Park, using the enterococci and *Clostridium perfringens* indicator bacteria. Assessment results also showed that turbidity standards were not attained at Haena Beach.

TABLE 2. Newly Listed Marine Waters: Kauai

Kauai							
Geo scope	**ASSESS ID**	**Entero**	**TN**	**NO3+NO2**	**TP**	**TURB**	**other**
Haena Beach Park	HI554189	A	?	?	?	N	
Kapaa Beach Co. Park	HI972832	N	?	?	?	?	
Lydgate Park	HI798758	N	?	?	?	?	
Po'ipu Beach Co. Park	HI396850	N	?	?	?	?	
Salt Pond Beach Co. Park	HI701008	N	?	?	?	?	

Key: Entero=enterococci; TN=total nitrogen; NO3+NO2=nitrate+nitrite nitrogen; TP=total phosphate; TURB=turbidity; chl-a=chlorophyll a; NH$=ammonium nitrogen.

Table 3 displays the total of 11 newly listed waters for the island of Oahu. Sampling results for Ocean Pointe (HIW00129, HIW00130, and HIW00131) showed the water bodies did not attain state standards for total nitrogen, nitrate + nitrite, and ammonium, while attaining standards for total phosphorus, and chlorophyll a. Sampling results for Ocean Pointe (HIW00132) showed the water bodies did not attain state standards for total nitrogen, nitrate + nitrite, ammonium, and chlorophyll a, while attaining standards for total phosphorus. The remaining 7 listings were due to assessments indicating that state standards were not attained for enterococci, using the enterococci and *Clostridium perfringens* indicator bacteria.

TABLE 3. Newly Listed Marine Waters: Oahu

Oahu							
Geo scope	ASSESS ID	Entero	TN	NO3+NO2	TP	TURB	other
Kaaawa Beach Park	HI580360	N	?	?	?	?	
Kahana Park	HIW00103	N	?	?	?	?	
Kahanamoku Beach	HI366432	N	?	?	?	?	
Kawaiku'i Beach Park	HI304424	N	?	?	?	?	
Ocean Pointe	HIW00129	?	N	N	A	N	chl-a(A), NH4(N)
Ocean Pointe	HIW00130	?	N	N	A	N	chl-a(A), NH4(N)
Ocean Pointe	HIW00131	?	N	N	A	N	chl-a(A), NH4(N)
Ocean Pointe	HIW00132	?	N	N	A	N	chl-a(N), NH4(N)
Hawaiian Electric Beach	HI628972	N	?	?	?	?	
Waimanalo Beach Co. Pk (South)	HIW00174	N	?	?	?	?	
Waimea Bay	HIW00128	N	?	?	?	?	

Table 4 displays a total of 6 newly listed water bodies listed for the island of Lanai. Assessment results indicated that standards were attained for TN and TP for all 8 sites. Assessment results showed that turbidity standards were not attained at Awehi (HIW00134), Manele Boat Harbor (HIW00179), Kahemano Beach (HI801428), and Mahanalua (HIW00136). Assessment results indicated that standards were not attained for chl-a only at Manele Boat Harbor (HIW00179). Lastly, assessment results indicated that standards for NH4 were only attained at Hulupoe Bay (HIW00177), and Manele Bay Beach (HIW00178).

TABLE 4. Newly Listed Marine Waters: Lanai

Lanai							
Geo scope	ASSESS ID	Entero	TN	NO3+NO2	TP	TURB	other
Awehi	HIW00134	?	A	A	A	N	chl-a(A), NH4(N)
Hulupoe Bay	HIW00177	?	A	A	A	A	chl-a(A), NH4(A)
Manele Bay Beach	HIW00178	?	A	A	A	A	chl-a(A), NH4(A)
Manele Boat Harbor	HIW00179	?	A	N	A	N	chl-a(N), NH4(N)
Kahemano Beach	HI801428	?	A	A	A	N	chl-a(A), NH4(N)
Kaluakoi Point to Huawai Bay	HIW00135	?	A	A	A	A	chl-a(A), NH4(N)
Kawaiu Gulch-Makole Pt.	HIW00133	?	A	A	A	A	chl-a(A), NH4(N)
Mahanalua	HIW00136	?	A	A	A	N	chl-a(A), NH4(N)

Table 5 displays a total of 6 newly listed water bodies listed for the island of Maui. Assessment results indicated that state standards were attained for TP at 4 of the 7 sites, Honokowai Pt. to Kaanapali (HIW00139), Mala Wharf area (HIW00138), Oneuli Beach (HI756040), and Poolenalena-Makena Landing (HIW00143). Honokowai Pt. to Kaanapali (HIW00139) also attained state standards for NO3+NO2, turbidity, and chl-a. Microbiological sampling data was not available at these sites.

TABLE 5. Newly Listed Marine Waters: Maui

Maui							
Geo scope	ASSESS ID	Entero	TN	NO3+NO2	TP	TURB	other
Honokowai Pt. to Kaanapali	HIW00139	?	N	A	A	A	chl-a(A), NH4(N)
Mala Wharf area	HIW00138	?	N	N	A	N	chl-a(N), NH4(N)
Oneloa Beach (Big Beach)-Ahihi-Kinau	HIW00144	?	N	N	N	N	chl-a(N), NH4(N)
Oneuli Beach	HI756040	?	N	N	A	N	chl-a(N), NH4(N)
Poolenalena-Makena Landing	HIW00143	?	N	N	A	N	chl-a(N), NH4(N)
Makena Landing-Maluaka Beach	HIW00142	?	N	N	N	N	chl-a(N), NH4(N)

Table 6 displays a total of 14 newly listed water bodies listed for the island of Hawaii. Assessment results indicated that state standards were not attained for TN at all sites except Kamakaokahonu. All other assessment results indicated mixed results. Assessment results indicated that 8 of 14 sites attained state standards for Nitrate + nitrite, 9 of 14 sites attained state standards for total phosphate, 4 of 14 sites attained state standards for turbidity, 12 of 14 sites attained state standards for chlorophyll a, and 8 of 14 sites attained state standards for ammonium. Kamakaokahonu (HIW00032) was the only site that assessment results indicated that state standards were not attained for enterococci, using the enterococci and *Clostridium perfringens* indicator bacteria.

TABLE 6. Newly Listed Marine Waters: Hawaii (Big Island)

Hawaii							
Geo scope	ASSESS ID	Entero	TN	NO3+NO2	TP	TURB	other
Honokohau Beach	HI315174	?	N	N	A	A	chl-a(A), NH4(A)
Kahoiawa Bay	HIW00150	?	N	A	A	N	chl-a(A), NH4(A)
Kahoiawa Bay-Makalawena	HIW00151	?	N	A	A	N	chl-a(A), NH4(A)
Kakapa Bay	HIW00152	?	N	A	A	N	chl-a(A), NH4(A)
Kamakaokahonu	HIW00032	N	?	?	?	?	
Kealakekua Bay	HIW00149	?	N	N	N	N	chl-a(A), NH4(A)
Kahuwai Bay-Mano Pt.	HIW00153	?	N	A	A	A	chl-a(A), NH4(A)
Kuki'o Bay	HIW00154	?	N	N	N	N	chl-a(A), NH4(N)
Manini'owali	HI720408	?	N	A	A	N	chl-a(A), NH4(A)
Paaoao Point to Keawekaheka Point	HIW00145	?	N	A	A	N	chl-a(A), NH4(A)
Pine Trees	HI320616	?	N	A	A	A	chl-a(A), NH4(A)
Pine Trees-Honokohau	HIW00146	?	N	N	N	A	chl-a(N), NH4(N)
Waiulua Bay to Anaehoomalu Bay	HIW00148	?	N	N	N	N	chl-a(A), NH4(N)
Wawaloli Beach-Pine Trees	HIW00147	?	N	A	A	N	chl-a(A), NH4(A)

Two tables are provided to display changes that have occurred since the previous listing period, Table 7, and the 2006 Water Body Assessment Decisions table. Table 7 is provided to aid the reader in tracking water bodies from 2004 to the corresponding new water body for the 2006 cycle. The table lists any changes that have occurred to the 2004 303(d) listing of coastal/estuary waters. The first column is entitled 2004 Segment, and contains the specific name of the area that the 2004 assessment applied to. The second column is entitled 2004 Station ID and contains the sampling station code, if available, for the water body. The third column contains the new 2006 geocode for the water body. Column 4 contains the 2004 pollutants that, in 2006, a change has occurred. Column 5 contains *only new* pollutants for 2006 that the water body has been assessed to be impaired. Column 6 lists the action taken to categorize the water body as a result of assessed data. Column 7 describes a justification for each action is given. Column 8 lists the action taken, and a description of the reasons for the change in category. The last column contains each new respective 2006 category utilizing the multi-category method.

Assessment results for each water body were coded according to EPA methods, and placed in the 2006 Water Body Assessment Decisions table (Chapter IV). If the calculated level was found to be above the state standard, the parameter was entered as "Not Attaining" (N). If the calculated value was below the stated value, the parameter was entered as "Attaining" (A). It is important to note that the marine water bodies entered in the table are not reflective of all marine areas of the state, rather they indicate areas where sampling has taken place, and areas of higher incidence of human contact. Areas not show in the table do not have any sampling data available, and are considered to be in category "3". Ensuing cycles may add waters as necessary. Parameters where no data was available were coded with a "?". TMDL Priority rankings columns for marine water bodies were populated by the TMDL coordinator. The Water Body Assessment Decisions table is described in more detail below.

The Water Body Assessment Decisions table contains the assessment results for all waters, inland and marine. Inland waters are discussed in Chapter II. The following narrative will only apply to the marine sections. The first column contains the water body type, as distinguished by HAR 11-54. The second column contains the "Scope of Listing", or the name of the specific area that the assessment applies to. The next column contains the Geocode ID, or assessment ID that is the alphanumeric identifier attached to each listing. Columns 5-10 contain common pollutants found in Hawaii's waters. Column 11 contains other pollutants that were found with less frequency. The eleventh column contains the category that each water body has been assessed to. As described earlier, the multi-category assessment allows for a better description of each water body. For example, a waterbody that attains standards in enterococci, TN, NO3+NO2, but does not attain for TP, and has no data for turbidity will have a listing of "2, 3, 5', instead of simply "5".

The Water Body Assessment Decisions table contains a number of waterbodies that are similar in name to other waterbodies (indicated by an asterisk *); these are not duplicates. These waterbody entries are from previous 303(d) listing cycles and were listed at that time as separate entities from similar named sampling stations.

TABLE 7: Category List of Changes to 2004 Listed Coastal Waters (excludes newly listed waters)

- A multi-category listing method was employed for 2006 to better characterize water quality conditions; a single category method was employed for 2004. Therefore, a Category "2" is assigned to all water bodies that have shown attainments for one or more pollutants and a Category "3" has been assigned to all water bodies for one or more pollutants that have inadequate data available for assessing attainment status.
- * = A new Category 3 has been assigned to this water body because no adequate data is available for assessing attainment status of one or more pollutants. See 2006 303(d)/305(b) list for more information.
- The 2004 and 2006 Pollutants columns are only populated with pollutants on which a *change* has occurred (e.g. new listing, delisting, etc.).
- Pollutants**:** entero=enterococci; TN=Total Nitrogen, NO3+NO2=Nitrate+Nitrite nitrogen, TP=Total Phosphorus, Turb=Turbidity, chl-a=chlorophyll a
- For the purposes of this report, listed water bodies are sorted by island, north to south, following the listing order of the 2004 list.
- Summary Rationale Codes: NND=New Numerical Data; NL=New Listing (category 5); DL=Delisting (category 5 to 2); A2=Assigning of category 2; CIC=Change in Coding (single to multi-parameter); CGS=Clarified Geographical Scope; TC=Textual Change.

KAUAI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Anini Park Pavilion station *Anini Beach Park*	000801	HI418744			Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***	2,3,5
Hanalei Bay Landing station (station 000804) *Hanalei Bay (Landing)*	000804	HIW00093			Modified	CGS, CIC	Both 2004 listed areas (000804 and 8HWH-HBL) absorbed by 2006 Decision Unit HIW00093. Data all from the same station. Station is also changed to estuary. **Assign cat. 3***	3,5
Hanalei Bay Landing station (station 000804) *Hanalei Bay (Landing)*	000804	HIW00093	entero		Modified	CGS, CIC	Entero listing for both areas (000804 and 8HWH-HBL) applies to new 2006 Decision Unit HIW00093. Data all from the same station.	3,5
Hanalei Bay Landing station (station 000804) *Hanalei Bay (Landing)*	000804	HIW00093	Turb		Modified	CGS, CIC	Turb listing applies to new 2006 Decision Unit HIW00093. Represents combination of 000804 and 8HWH-HBL. Data all from the same station.	3,5
Hanalei Bay Landing station *Hanalei Bay (Landing)*	8HWH-HBL	HIW00093			Modified	CGS, CIC	Both 2004 listed areas (000804 and 8HWH-HBL) absorbed by 2006 Decision Unit HIW00093. Data all from the same station. **Assign cat. 3***	3,5

KAUAI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Hanalei Bay Landing station *Hanalei Bay (Landing)*	8HWH-HBL	HIW00093	Turb		Modified	CGS, CIC	Turb listing applies to new 2006 Decision Unit HIW00093. Represents combination of 000804 and 8HWH-HBL. Data all from the same station.	3,5
Hanalei Bay Mooring Station	8HWH-HBM	HIW00157	entero		Modified	CIC	**Assign cat. 3***	3,5
Hanalei Bay at Pavilion Station *Hanalei Bay (Pavilion)*	8HWH-HBPAV	HIW00092			Modified	CGS, CIC	This station was absorbed by the 2006 Decision Unit HIW00092. **Assign cat. 3***	3,5
Hanalei Bay at Pavilion Station *Hanalei Bay (Pavilion)*	8HWH-HBPAV	HIW00092	entero		Modified	CGS, CIC	This station was absorbed by the 2006 Decision Unit HIW00092. entero listing carried over. **Assign cat. 3***	3,5
Hanalei Bay at Pinetrees station *Hanalei Bay (Waioli Beach)*	8HWH-HBPIN	HIW00091			Modified	NND, A2, NL, CIC	This station was absorbed by the 2006 Decision Unit HIW00091.	2,3,5
Hanalei Bay at Pinetrees station *Hanalei Bay (Waioli Beach)*	8HWH-HBPIN	HIW00091	entero			NND, A2, NL, CIC	**Assign cat. 2**; The assessment of new data documents indicate that applicable WQS are meeting attainment for entero. **Assign cat. 3***	2,3,5
Hanalei Bay at Pinetrees station *Hanalei Bay (Waioli Beach)*	8HWH-HBPIN	HIW00091		Turb		NND, A2, NL, CIC	**Assign cat. 5**; The assessment of new data documents indicate that applicable WQS are not meeting attainment for Turb.	2,3,5
Hanalei River upstream of Dolphin	8HWH-HRD	HIW00160			Modified	CIC	**Assign cat. 3***	3,5
Hanalei River (Weke Rd) station (station 000839) *Hanalei River*	000839	HI385259			Modified	CGS, CIC	This station was absorbed by the 2006 Decision Unit HI385259. Station is also changed to estuary. **Assign cat. 3***.	3,5

KAUAI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Hanalei River (Weke Rd) station (station 000839) *Hanalei River*	000839	HI385259	entero		Modified	CGS, CIC	Entero listing for 000839 applies to new 2006 Decision Unit HI385259. Data all from the same station.	3,5
Hanalei River (Weke Rd) station (station 000839) *Hanalei River*	000839	HI385259	Turb		Modified	CGS, CIC	Turb listing for both areas (000839 and 8HWH-HRW) applies to new 2006 Decision Unit HI385259. Data all from the same station.	3,5
Hanalei River (Weke Rd) station *Hanalei River*	000839	HI385259			Modified	CGS, CIC	Both 2004 listed areas (000839 and 8HWH-HRW) absorbed by 2006 Decision Unit HI385259. Data all from the same station. **Assign cat. 3***.	3,5
Hanalei River (Weke Rd) station *Hanalei River*	000839	HI385259	Turb		Modified	CGS, CIC	Turb listing for both 2004 listed areas (000839 and 8HWH-HRW) absorbed by 2006 Decision Unit HI385259. Data all from the same station. **Assign cat. 3***.	3,5
Hanama'ulu Bay	8-HMB-L	HIW00063			Modified	CIC	**Assign cat. 3***.	3,5
Hanama'ulu Beach (middle) station *Hanamaulu Bay (Beach Station)*	000806	HIW00094			Modified	CIC	**Assign cat. 3***.	3,5
Hanapepe Bay from breakwater to shore and nearshore waters to 30' from Puolo Point to Paakehi Point	8-HPB-L	HIW00048			Modified	CIC	**Assign cat. 3***.	3,5
Port Allen Pier Station *Port Allen Boat Harbor (Port Allen Pier station)*	000821	HIW00026			Modified	CIC	**Assign cat. 3***.	3,5
Kalihiwai Bay Beach Staton *Kalihiwai Bay*	000811	HI264001			Modified	CIC	**Assign cat. 3***.	3,5
Koloa Landing	000837	HI955435			Modified	CIC	**Assign cat. 3***.	3,5
Waikoko Stream Estuary	2-1-16E	HIW00162			Modified	CIC	**Assign cat. 3***.	3,5

KAUAI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Waioli Stream Estuary	2-1-18E	HIW00163			Modified	CIC	**Assign cat. 3***.	3,5
Waipa Stream Estuary	2-1-17E	HIW00164			Modified	CIC	**Assign cat. 3***.	3,5
Nawiliwili Bay from breakwater to shore	8-NB-L	HIW00059			Modified	CIC	**Assign cat. 3***.	3,5
Nawiliwili Harbor-Coast Guard Pier station *Nawiliwili Bay (Nawiliwili Harbor)*	000817	HIW00115			Modified	CIC, TC	Change in name to Nawiliwili Bay (Nawiliwili Harbor); **Assign cat. 3***.	3,5
Kalapaki Bech (middle) station *Nawiliwili Bay (Kalapaki Beach)*	000809	HIW00114			Modified	CIC	**Assign cat. 3***.	3,5
Nawiliwili Bay offshore embayment station	000881	HIW00116			Modified	CIC	**Assign cat. 3***.	3,5
Wailua River station *Wailua (Wailua River Station)*	000822	HI606168			Modified	CIC	**Assign cat. 3***.	3,5
Waimea Bay nearshore waters to 18' from Kekaha Oomano Pt. to point 1.5 miles southeast of Mahinaui Stream	8-WB-L	HIW00057			Modified	CIC	**Assign cat. 3***.	3,5
Waimea Bay Beach (near River) station	000823	HI862821			Modified	CIC	**Assign cat. 3***.	3,5

OAHU								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Ala Wai Canal and Boat Harbor	0-AWCH-L	HIW00050			Modified	CIC	**Assign cat. 3***.	3,4a, 5
Ala Wai Canal (Diamond Head end) station	ALWS 01	HIW00085			Modified	CIC	**Assign cat. 3***.	3,5
Ala Moana Bridge station	000320	HIW00125			Modified	CIC	**Assign cat. 3***.	3,5
Manoa Stream Fork station	ALWS 03	HIW00035			Modified	CIC	**Assign cat. 3***.	3,5
Manoa-Palolo Stream mouth station	ALWS 05	HIW00087			Modified	CIC	**Assign cat. 3***.	3,5
Manoa-Palolo Stream (KHS) station	ALWS 04	HIW00036			Modified	CIC	**Assign cat. 3***.	3,5
Palolo Stream Fork station	ALWS 02	HIW00034			Modified	CIC	**Assign cat. 3***.	3,5
McCully St. Bridge station	000321	HIW00086			Modified	CIC	**Assign cat. 3***.	3,5
Ewa Beach Park	000189	HI319095		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Gray's Beach	000159	HI941499		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Hanauma Bay	O-HB-L	HIW00058			Modified	CIC	**Assign cat. 3***.	3,5
Hanauma Bay (oceanic) station	000444	HIW00017			Modified	CIC	**Assign cat. 3***.	3,5
Hanauma Bay (Beach)	000201	HIW00096		entero	Modified	NND, NL, CIC	**ASSIGN cat. 5**; The assessment of new data documents indicate that applicable WQS are not being attained for entero. **Assign cat. 3***.	2,3,5
Hawaii Kai station	000229	HIW00117			Modified	CIC	**Assign cat. 3***.	3,5
Honolulu Harbor and Shore Areas: Nearshore waters to 30' from 1 mile northwest of Honolulu Harbor/Sand Island channel to Waikiki Beach	O-HHSA-L	HIW00049			Modified	CIC	**Assign cat. 3***.	3,5

OAHU								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Ala Moana Beach (Diamond Hd)	000154	HIW00002	entero		Delist, Modified	NND, DL, CIC	**DELIST: cat. 2**; The assessment of new data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2. **Assign cat. 3***.	2,3
Ala Moana Beach (Center)	000153	HIW00001		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Honolulu Harbor and Shore Areas-Kewalo Basin	O-HHSA-KB-L	HIW00051			Modified	CIC	**Assign cat. 3***	3,5
Kewalo Basin station *Kewalo Basin*	000361	HIW00126			Modified	CIC	**Assign cat. 3***.	3,5
Honolulu Harbor & Shore area-Honolulu Waterfront-Aloha Tower	O-HHSA-HWAT-L	HIW00061			Modified	CIC	**Assign cat. 3***.	3,5
Sand Island Point #2	000165	HI714359		entero	Modified	NND, A2, CIC	**ASSIGN cat. 2**; The assessment of new data documents indicate that applicable WQS are being attained for entero. **Assign cat. 3***.	2,3,5
Sand Island Point #3	000166	HIW00181	TN, Turb, chl-a		Modified	CIC	**Correction of error:** This station was erroneously listed in 2004 as station 000165. The correct number is 000166. Pollutant listing is correct, and no new listings were made. **Assign cat. 3***.	2,3,5
Lanikai Beach station *Lanikai Beach*	000194	HI596989	entero		Delisted	NND, DL, CIC	**DELIST: cat. 2**; The assessment of new data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2. **Assign cat. 3***.	2,3
Kaelepulu Stream station *Kaelepulu Stream-Kailua Bch*	000302	HIW00182			Modified	CIC	**Assign cat. 3***.	3,5

OAHU								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Kahana Bay Nearshore waters to 30' from Mahie Point to a point one mile north of Kahana Bay station	O-KAHB-L	HIW00062			Modified	CIC	**Assign cat. 3***.	3,5
Kahana Park (1) station *Kahana Bay Park*	000178	HIW00102			Modified	CIC	**Assign cat. 3***.	3,5
Kahanamoku Lagoon-Diamond Head station *Kahanamoku Lagoon*	000157	HIW00003			Modified	CIC	**Assign cat. 3***.	3,5
Kailua Beach Park station *Kailua Beach Park*	000193	HI482719	entero		Modified	NND, A2, CIC	**ASSIGN cat. 2**; The assessment of new data documents indicate that applicable WQS are being attained for entero. **Assign cat. 3***.	2,3,5
Oneawa Beach station *Oneawa Beach*	000304	HI952205			Modified	CIC	**Assign cat. 3***.	3,5
Kaiona Beach station *Kaiona Beach*	000227	HI234342			Modified	CIC	**Assign cat. 3***.	3,5
Kaneohe Bay Nearshore waters at mouths of Kaneohe and Kawa streams	O-KANB-L	HIW00054			Modified	CIC	**Assign cat. 3***.	3,5
Kaneohe Bay (Central Region) station *Kaneohe Bay (Central Region)*	000403	HIW00013			Modified	CIC	**Assign cat. 3***.	3,5
Kaneohe Bay (Northern Region) station *Kaneohe Bay (Northern Region)*	000402	HIW00012			Modified	CIC	**Assign cat. 3***.	3,5
Kaneohe Bay (Southern Region) station *Kaneohe Bay (Southern Region)*	000401	HIW00011			Modified	CIC	**Assign cat. 3***.	3,5

OAHU								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Kokokahi Pier	000191	HIW00005			Modified	CIC	**Assign cat. 3***.	3,5
Kaneohe Beach Park station *Kaneohe Beach Park*	000190	HIW00004			Modified	CIC	**Assign cat. 3***.	3,5
Heeia Kea Small Boat Harbor station *Heeia Kea Small Boat Harbor*	000362	HIW00097			Modified	CIC	**Assign cat. 3***.	3,5
Kawela Bay station *Kawela Bay*	000173	HI698581			Modified	CIC	**Assign cat. 3***.	3,5
Keehi Lagoon waters and nearshore waters to 30' from lagoon mouth to Pearl Harbor	O-KL-L	HIW00055			Modified	CIC	**Assign cat. 3***.	3,5
Keehi Lagoon Point X	000342	HIW00010			Modified	CIC	**Assign cat. 3***.	3,5
Kualoa Beach Park Station *Kualoa Co. Regional Park*	000208	HI848207			Modified	CIC	**Assign cat. 3***.	3,5
Kuhio Beach station *Kuhio Beach*	000161	HI681782			Modified	CIC	**Correction:** Correct station number from 00161 to 000161. **Assign cat. 3***.	3,5
Makaha station *Makaha Beach*	000185	HI632106		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Mamala Bay (oceanic) station *Mamala Bay (oceanic)*	000442	HIW00015			Modified	CIC	**Assign cat. 3***.	3,5
Mamala Bay (Sand Island offshore) station *Mamala Bay (Sand Island offshore)*	000441	HIW00014			Modified	CIC	**Assign cat. 3***.	3,5
Maunalua Bay (open coastal) station *Maunalua Bay (open coastal)*	000443	HIW00016			Modified	CIC	**Assign cat. 3***.	3,5

OAHU								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Pearl Harbor waters and nearshore waters to 30' from Keehi Lagoon to Oneula Beach	O-PH-L	HIW00119			Modified	CIC	**Assign cat. 3***.	3,5
Blaisdell Park *Pearl Harbor (Blaisdell Park)*	000223	HIW00006			Modified	CIC	**Assign cat. 3***.	3,5
Pokai Bay (oceanic) station *Pokai Bay (oceanic)*	000452	HIW00019			Modified	CIC	**Assign cat. 3***.	3,5
Pokai Bay (open coastal) station *Pokai Bay (open coastal)*	000451	HIW00018			Modified	CIC	**Assign cat. 3***.	3,5
Public Bath Beach station *Kuhio Beach (Public Bath)*	000162	HI851298		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Salt Lake	O-SL-L	3-3-12-Salt Lake			Modified	CIC	Listed Under Freshwater Portion of report	
Sandy Beach	000200	HI776760		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Wai'alae-Kahala Beach station *Wai'alae Beach Co. Park*	000214	HI997368			Modified	CIC	**Assign cat. 3***.	3,5
Waialua/Kaiaka Bays Nearshore waters to 60' from Puaena Point to a point 1.5 miles west of Kaiaka Point	O-W/KB-L	HIW00083			Modified	CIC	**Assign cat. 3***.	3,5
Kaiaka Bay	000170	HIW00106	entero		Modified	NND, A2, CIC	**ASSIGN cat. 2**; The assessment of new data documents indicate that applicable WQS are being attained for entero. **Assign cat. 3***.	2,3,5

OAHU								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Haleiwa Beach Park station *Haleiwa Beach Park*	000171	HI994019		entero	New Listing	NND, NL, CIC	**ASSIGN cat. 5**; The assessment of new data documents indicate that applicable WQS are not being attained for entero. **Assign cat. 3***.	2,3,5
Waimanalo Bay station *Waimanalo Bay station (Waimanalo Beach Co. Park North)*	000196	HIW00175		entero	Delisted	NND, DL, CIC	**DELIST: cat. 2**; The assessment of 3 years of data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2. **Assign cat. 3***.	2,3
Bellows Beach (Waimanalo Stream mouth) station *Bellows Field Beach Co Pk. (Waimanalo strm mouth)*	Bellows5	HIW00081			Modified	CIC	**Assign cat. 3***.	3,5
Bellows Beach (north runway) station *Bellows Field Beah Co. Pk. (N. runway)*	Bellows4	HI798011			Modified	CIC	**Assign cat. 3***.	3,5

MAUI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
H.A. Baldwin Park Station *H.A. Baldwin Beach Co. Pk*	000689	HI846900			Modified	CIC	**Assign cat. 3***.	3,5
Hanaka'o'o Beach station *Hanaka'o'o Beach Co. Pk*	000693	HI797917		entero	New Listing	NND, NL, CIC	**ASSIGN cat. 5**; The assessment of new data documents indicate that applicable WQS are not attained for entero. **Assign cat. 3***.	3,5
Hanakaoo Station	6-EL1	HIW00165			Modified	CIC	**Assign cat. 3***.	3,5
Honomanu Bay station *Honomanu Bay*	000653	HI985873			Modified	CIC	**Assign cat. 3***.	3,5
Ho'okipa station *Ho'okipa Beach Co. Pk*	000688	HIW00024			Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Airport (Kahekili Beach) station *Ka'anapali (Kahekili Beach)*	000695	HI643627		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Kahului Bay inshore of breakwater	6-KB-L	HIW00053			Modified	CIC	**Assign cat. 3***.	3,5
Hukilau Hotel station *Kahului Harbor*	000654	HIW00104		entero	Modified	NND, NL, CIC	**ASSIGN cat. 5**; The assessment of new data documents indicate that applicable WQS are not being attained for entero. **Assign cat. 3***.	3,5
Kahului Bay station *Kahului Harbor (Bay)*	000680	HIW00105			Modified	CIC	**Assign cat. 3***.	3,5
Kihei Coast-Kalepolepo	6-EL2	HIW00039			Modified	CIC	**Assign cat. 3***.	3,5
Kaa Shoreline station *Kanaha Beach (Kaa Shoreline)*	000655	HIW00020			Modified	CIC	**Assign cat. 3***.	3,5
Kanaha Beach Park station *Kanaha Beach*	000677	HI797225		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	3,5
Kihei Coast-Kaunoulu Estuary	6-EL3	HIW00040			Modified	CIC	**Assign cat. 3***.	3,5
Kihei Coast-Kealia Pond	6-EL4	HIW00070			Modified	CIC	**Assign cat. 3***.	3,5
Kihei Coast - Estuary Boat Ramp	6-EL5	HIW00166			Modified	CIC	**Assign cat. 3***.	3,5

MAUI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Kihei Coast-Cove Park	6-EL6	HIW00167			Modified	CIC	**Assign cat. 3***.	3,5
Kihei Coast-Nearshore waters to 60' from Kihei North - Kalama Beach	6-KC-L	HIW00056			Modified	CIC	**Assign cat. 3***.	3,5
Kalama Beach station *Kalama Beach Co. Park (Beach)*	000679	HIW00023		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Kalama Beach station	6-EL7	HIW00168			Modified	CIC	**Assign cat. 3***.	3,5
Kamaole Beach #1 station. *Kamaole Beach 1*	000681	HI761092		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Kamaole Beach #2 station *Kamaole Beach 2*	000682	HI097179		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Kihei Coast-South Kam II	6-EL8	HIW00071			Modified	CIC	**Assign cat. 3***.	3,5
Kamaole Beach #3 station *Kamaole Beach 3*	000683	HI496115			Modified	CIC	**Assign cat. 3***.	3,5
Keawakapu Beach station *Keawakapu Beach*	000685	HI607763		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Kihei Coast-Keawakapu	6-EL9	HIW00074			Modified	CIC	**Assign cat. 3***.	3,5
Kihei North station *Mai Poina Oe Iau Beach Co. Pk. (Kihei N. station)*	000671	HI715975			Modified	CGS, CIC	Station name changed to include Mai Poina Oe Iau Beach	3,5
Kihei South station *Kalepolepo (Waimahaihai)*	000676	HIW00141		entero	Modified, New Listing	NND, NL, CIC	**ASSIGN cat. 5**; The assessment of new data documents indicate that applicable WQS are not being attained for entero. **Assign cat. 3***.	2,3,5
Kihei Coast-Lipoa South	6-EL10	HIW00072			Modified	CIC	**Assign cat. 3***.	3,5
Ulua Beach station *Ulua Beach Park*	000686	HI588333			Modified	CIC	**Assign cat. 3***.	3,5
Launiupoko Wayside Park station *Launiupoko St. Wayside Park*	000694	HI558359		entero	Modified	NND, NL, CIC	**ASSIGN cat. 5**; The assessment of new data documents indicate that applicable WQS are not being attained for entero. **Assign cat. 3***	3,5

MAUI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Kihei Coast-Luana Kai	6-EL11	HIW00041			Modified	CIC	**Assign cat. 3***.	3,5
Kihei Coast - Maui Coast	6-EL12	HIW00073			Modified	CIC	**Assign cat. 3***.	3,5
Kihei Coast-Mokulele	6-EL13	HIW00042			Modified	CIC	**Assign cat. 3***.	3,5
Kihei Coast-Kulanihakoi	6-EL14	HIW00043			Modified	CIC	**Assign cat. 3***.	3,5
Ma'alaea Condo station *Ma'alaea Beach*	000687	HI058731		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Maalaea Small Boat Harbor station *Ma'alaea Small Boat Harbor*	000659	HIW00140			Modified	CIC	**Assign cat. 3***.	3,5
Maalaea Boat Harbor station *Ma'alaea Boat Harbor station**	6-EL15	HIW00082			Modified	CIC	**Assign cat. 3***.	3,5
Mai Poina Oe Iau Station *Mai Poina Oe Iau Beach Co. Pk*	000702	HIW00025			Modified	CIC	**Assign cat. 3***.	3,5
Makena Beach station *Oneloa Beach (Big Beach) (Makena Bch Station)*	000661	HI279887			Modified	CIC	**Assign cat. 3***.	3,5
Teen Challenge (mi 14) station *Olowalu (Teen Challenge)*	000697	HI491359		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Pa'ia Outfall station *Lower Pa'ia (Pa'ia Outfall station*	000664	HI864937		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Pu'unoa (Baby) Beach station *Pu'unoa Beach*	000696	HI373055		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Spreckelsville Beach station *Spreckelsville*	000700	HI789952		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Ukumehame Beach station	000698	HI814309			Modified	CIC	**Assign cat. 3***.	3,5

MAUI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Wailea Beach Station *Wailea Beach Park*	000691	HI278988		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
West Maui Coast-Hanakeana Cove	6-EL16	HIW00044			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast- Kahana Cove	6-EL17	HIW00045			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast-Kahana Sunset	6-EL18	HIW00075			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast-Kahana Village	6-EL19	HIW00076			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast -Kaopala Bay	6-EL20	HIW00046			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast-Nearshore waters to 60' from Honolua - Lahaina	6-WMC-L	HIW00060			Modified	CIC	**Assign cat. 3***.	3,5
Olowalu Shore Front station *Olowalu (Shorefront)*	000663	HIW00021			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast-Lokelani	6-EL21	HIW00077			Modified	CIC	**Assign cat. 3***.	3,5
Lahaina Small Boat Harbor station *Lahaina Small Boat Harbor*	000657	HIW00137			Modified	CIC	**Assign cat. 3***.	3,5
Mala Warf – West Maui Coast	6-EL22	HIW00123			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast-Napili Bay	6-EL23	HIW00078			Modified	CIC	**Assign cat. 3***.	3,5
Mala Wharf station *Mala Wharf*	000662	HIW00171			Modified	CIC	**Assign cat. 3***.	3,5
Waihikuli Beach station *Wahikuli State Wayside Park*	000678	HI169380			Modified	CIC	**Assign cat. 3***.	3,5

MAUI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Sheraton Kaanapali Shoreline station *Ka'anapali (Sheraton Kaanapali Shoreline)*	000666	HIW00022			Modified	CIC	**Assign cat. 3***.	3,5
Hale Onoloa Condominium Shore station *Honokowai Beach Co. Pk. (Hale Onoloa Condo)*	000651	HI412391			Modified	TC, CIC	Station name changed to Honokowai Beach Park	3,5
Mahinahina Condo Shoreline station. *Kahana (Mahinahina Condo Shoreline)*	000660	HI160433			Modified	CIC	**Assign cat. 3***.	3,5
Fleming Beach station *Kapalua (Fleming's) Beach*	000650	HI391006			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast -S-Turns (Pohaku)	6-EL24	HIW00047			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast-Papakea	6-EL25	HIW00079			Modified	CIC	**Assign cat. 3***.	3,5
West Maui Coast-Puamana	6-EL26	HIW00080			Modified	CIC	**Assign cat. 3***.	3,5
Fleming Beach North station *Fleming Beach North*	000674	HI253548		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5

MOLOKAI								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Kawaaloa and Moomomi Bays *Kawa'aloa Bay*	MO-KMB-L	HI384043			Modified	CGS, CIC	2004 station separated into 2 distinct bays. This 2006 station is for Kawa'aloa Bay. **Assign cat. 3***.	3,5
Kawaaloa and Moomomi Bays *Mo'omomi Beach*	MO-KMB-L	HI204811			Modified	CGS, CIC	2004 station separated into 2 distinct bays. This 2006 station is for Mo'omomi Bay. **Assign cat. 3***.	3,5
South Molokai-Nearshore waters to 18' from southwest point - Waialua	MO-SMC-L	HIW00052			Modified	CIC	**Assign cat. 3***.	3,5

HAWAII (BIG ISLAND)								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Hapuna Beach station *Hapuna Beach St. Rec. Area*	001200	HI621002		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Hilo Bay inshore of Breakwater and near shore waters from Wainaku to Paukaa	11HB-L	HIW00098			Modified	CIC	**Assign cat. 3***.	3,5
Hilo Bay Boat Landing station *Hilo Bay (Boat Landing)*	001106	HIW00027			Modified	CIC	**Assign cat. 3***.	3,5
Hilo Bay Canoe Beach station *Hilo Bay (Canoe Beach)*	001138	HI315019			Modified	CIC	**Assign cat. 3***.	3,5
Exit of Ice Pond station *Hilo Bay (Exit of Ice Pond)*	001102	HI659453	entero		Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Hilo Bay Lighthouse station *Hilo Bay (Ligh*	001107	HIW00028			Modified	CIC	**Assign cat. 3***.	3,5
Hilo Bay Offshore station *Hilo Bay (Offshore)*	001141	HIW00031			Modified	CIC	**Assign cat. 3***.	3,5
Honoli'i Cove station *Honoli'i Beach Co. Park*	001110	HI857411			Modified	CIC	**Assign cat. 3***.	3,5
Leleiwi Beach Park station *Leleiwi Beach Co. Pk.*	001121	HI540868	entero		Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of new data documents indicate that applicable WQS are now being attained for entero, resulting in a category change from 5 to 2. **Assign cat. 3***.	2,3,5
Kailua Pier A-1 station *Kamakaokahonu (Kailua Pier A-1)*	001205	HI261474		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Kawaihae Harbor/ Pelekane Bay	12KH/ PB	HIW00155			Modified	CIC	**Assign cat. 3***.	3,5

HAWAII (BIG ISLAND)								
2004 Segment ***2006 Segment (if altered)***	**2004 Stn. ID**	**2006 Assmnt ID**	**2004 Pollutants**	**2006 Pollutants**	**Decision Action**	**Summary Rationale**	**Reason for Changes of Category**	**2006 Cat.**
Spencer Beach Park station *Spencer Beach Co. Pk.*	001225	HI936372		entero	New Listing	NND, DL, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3
Kealakekua Bay - off curio stand station *Kealakekua Bay (Off Curio Stand)*	001211	HIW00183			Modified	CIC	**Assign cat. 3***.	3,5
Kolekole Gulch station *Kolekole Beach Co. Park*	001118	HI693485			Modified	CIC	**Assign cat. 3***.	3,5
Magic Sands Beach station *White Sands Beach Co. Pk. (Magic Sands)*	001215	HI436267		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Vacationland station *Kapoho Tidepools (Vacationland)*	001142	HI122881		entero	Modified	NND, A2, CIC	**Correction:** Correct station number from 1142 to 001142. **Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Puala'a Beach Park station *Analani Pond (Puala'a Beach Park Station)*	001143	HI707059			Delist, Modified	NND, DL, A2, CIC	**DELIST**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3
Puhi Bay #3 station *Onekahakaha Beach Co. Pk. (Puhi Bay #3)*	001130	HIW00029			Modified	CIC	**Assign cat. 3***.	3,5
Richardson Ocean Center station *Leleiwi Beach Co. Pk. (Richardson Ocean Ctr.)*	001136	HIW00030		entero	Modified	NND, A2, CIC	**Assign cat. 2**; The assessment of the last 3 years of data documents indicate attainment status for entero. **Assign cat. 3***.	2,3,5
Wailoa River Boat Ramp station *Wailoa River (Boat Ramp)*	001132	HIW00172			Modified	CIC	**Assign cat. 3***.	3,5

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